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April 13, 2022

Project No. CF167-1906

Ms. Madi Novak
Remedial Project Manager, Superfund and Emergency Management Division
U.S. Environmental Protection Agency, Oregon Operations Office
805 SW Broadway, Suite 500
Portland, OR 97205-3331

**Subject: Q1 January 1–March 31, 2022 Quarterly Progress Report, Arkema Project Area
Administrative Settlement Agreement and Order on Consent for Remedial
Design at the River Mile 7 West Project Area
U.S. EPA Region 10 CERCLA Docket No. 10-2020-0054**

Dear Ms. Novak:

On behalf of Legacy Site Services LLC (LSS), agent for Arkema Inc. (Arkema), this letter presents the quarterly progress report for work performed on the Arkema Project Area. This progress report is being submitted in accordance with Section 4.1 of Appendix A1, Arkema Statement of Work for the Administrative Settlement Agreement and Order on Consent for Remedial Design at the River Mile 7 West Project Area (CERCLA Docket No. 10-2020-0054) entered into by Arkema and the U.S. Environmental Protection Agency (EPA) with an effective date of February 21, 2020.

- a) Actions that have been taken toward achieving compliance with the Settlement:
- On January 14, 2022, LSS submitted the Q4 2021 quarterly progress report to EPA.
 - On January 26, 2022, LSS and EPA met to discuss the pre-design investigation (PDI) work schedule and plans for implementing the remaining Phase 1 and Phase 2 work, including a Phase 2 memorandum and work schedule. EPA and LSS discussed using an iterative, data gaps analysis and evaluation approach along with technical memoranda and field change requests (FCRs) to expedite the Phase 1 and Phase 2 work. Other technical issues were also discussed.

- On February 1, 2022, EPA provided an email to LSS regarding the PDI schedule, including preparing an analysis of groundwater evaluation and seasonal analysis to support the timing of porewater sampling.
- On March 8, 2022, LSS submitted to the City of Portland (City), Oregon Department of State Lands (DSL), and EPA a technical memorandum providing the details of the assessment of the City's sewer pressure main and a proposed "no coring buffer area" surrounding the City's sewer pressure main, including revised locations for selected Phase 1 sediment core stations.
- On March 11, 2022, EPA provided input on the sewer pressure main technical memorandum, including moving two sediment core stations, SC-13 and SC-14.
- On March 18, 2022, LSS and EPA discussed the upcoming field schedule, including test pits for both geotechnical and Phase 2 riverbank chemical sampling, and anticipated FCRs for both riverbank soil sampling work and Phase 1 coring, including step-out cores into the navigation channel. The preliminary results of the groundwater evaluation were also discussed, as well as the expected sample volume limitations of the combined Ultraseep/Trident probe sampling system.
- On March 18, 2022, Jeremiah Hess with the City emailed LSS stating appreciation for the work in identifying the location of the City's sewer pressure main, indicating that the "no coring buffer area" was acceptable to the City's team, and granting approval to proceed as planned.
- On March 22, 2022, Mr. Hess emailed LSS requesting information on whether the vibracoring methodology could cause ground shaking to the effect that it could be detected outside the City sewer pressure main 100-ft buffer zone.
- Between March 23 and March 30, 2022, LSS submitted FCR forms to EPA (see Section f, below).
- On March 24, 2022, EPA notified LSS about a request, if possible, that future data validation submittals to EPA and the Portland Harbor Interim Database be developed for each sample data group.
- On March 28, 2022, LSS notified EPA that HWA Geosciences Inc. of Bothell, Washington, will be conducting geotechnical testing of samples from the geotechnical test pits.
- On March 28, 2022, LSS emailed Mr. Hess with a list of requested documents related to the design, construction, maintenance, inspection, and condition of the City sewer pressure main, such that LSS could evaluate and respond to the

City's March 22 request for an evaluation of the impacts of vibracore ground shaking on the area around the City's sewer pressure main.

- On March 30, 2022, Mr. Hess notified LSS that the City either does not have or would not be able to obtain the documentation of the sewer pressure main documents requested by LSS on March 28. Mr. Hess indicated that he had talked to Mike Pinto of LSS, and they agreed that nothing further is needed at this time.
- b) List of all results of validated sampling, tests, and all other data received or generated by Respondent Arkema to comply with the Settlement:
 - Received the third round of preliminary riverbank soil data.
 - Received the first round of preliminary sediment data.
- c) List of all deliverables that Respondent Arkema submitted to EPA:
 - Three FCRs were submitted to EPA during this period (see Section f below).
- d) List of all activities scheduled for the next quarter:
 - Continue receiving and validating data for the Phase 1 sediment coring.
 - Continue receiving and validating data for the riverbank soil sampling.
 - Continue analyzing subsequent riverbank soil and sediment core samples based on their respective decision trees in the PDI Work Plan.
 - Continue planning, coordination, and subcontracting for the completion of the Phase 1 sediment coring sampling effort, the geotechnical coring, and groundwater study piezometer installation work. Begin planning and coordination for Phase 1 groundwater study work and Phase 2 sediment work.
- e) Information regarding percentage of completion, unresolved delays encountered or anticipated that may affect the future schedule for implementation of the Arkema RD Work, and a description of efforts made to mitigate those delays or anticipated delays:
 - The Phase 1 PDI work in accordance with the EPA-approved PDI Work Plan is approximately 45 percent completed.
 - As reported in the Q4 2021 quarterly progress report, the Phase 1 sediment coring work was delayed because the Oregon DSL permit was not issued until late November, and it was only a conditional approval for a portion of the sediment core locations. As such, 39 out of 93 coring stations were cored and sampled. The remaining sediment coring fieldwork will commence in Q2 2022.

- f) List of any modifications to the work plans or other schedules that Respondent Arkema has proposed or that have been approved by EPA:
 - FCR-15: Shift Geotechnical Test Pits Approximately 50–75 ft Landward, North and South as Needed Based on Field Conditions. Submitted on March 23, 2022; EPA approved on March 25, 2022.
 - FCR-16: Riverbank Chemistry Soil Sampling with an Excavator. Submitted on March 25, 2022; EPA approved on March 28, 2022.
 - FCR-17: Vibracore Step-Outs into the Navigation Channel. Submitted on March 30, 2022; EPA approved on April 4, 2022.
- g) List of all activities undertaken in support of the CIP during the reporting period and those to be undertaken in the next quarter:
 - LSS participated in the March 9, 2022, Portland Harbor Collaborative Group meeting as an observer. LSS intends to be an observer at the next Collaborative Group meeting scheduled for June 8, 2022.
 - Arkema's new Community Involvement Coordinators are Erin Tassey Krug and Rebecca McAuliffe with Quinn Thomas LLC.

Please contact me at (503) 943-3614 or Mike Pinto at (484) 437-1991 if you have any questions or comments pertaining to this progress report.

Sincerely,



Eron Dodak, R.G.
Senior Consultant